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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,337	07/21/2006	Laurence C. Chow	010118.00049	1875
22908 7590 07/23/2009 BANNER & WITCOFF, LTD. TEN SOUTH WACKER DRIVE SUITE 3000 CHICAGO, IL 60606				
EXAMINER				
GITOMER, RALPH J				
ART UNIT		PAPER NUMBER		
1657				
MAIL DATE		DELIVERY MODE		
07/23/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/552,337

**Applicant(s)**

CHOW ET AL.

**Examiner**

Ralph Gitomer

**Art Unit**

1657

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1.3.6 and 26-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1.3.6 and 26-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

The RCE Request and amendment received 6/15/09 have been entered and claims 1, 3, 6, 26-37 are currently pending in this application. Again, please inform the examiner of any related cases, abandoned, pending or allowed. Applicants have not informed the examiner as to how the present application differs from the parent application to which priority is claimed. It appears in 10/057,554 (6,793,725) the hardening time is greater than 60 minutes where in the present specification and claims the hardening time is less than 35 minutes. Therefore, no priority is granted to 10/057,554, only to 60/461,338 filed April 8, 2003 which is the first application in the series to teach organic acids to decrease setting time. Chow (7,294,187) filed September 15, 2004 does not have double patenting issues because it does not claim glycerin in the composition. And it is not available as prior art to the present application.

In view of the amendments to the claims and arguments presented, the rejection of record under 35 USC 102(b) over Tatsuzo and 112, first paragraph, are hereby withdrawn.

In claim 1 lines 1-2, "in combination" is not understood in context as to what may be intended. In claim 31 "ration" is queried.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, 6, 26-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tatsuzo in view of Mandai.

Tatsuzo (JP 02311406) entitled "Root Canal Filling Material Composition", English abstract only provided, a full English translation has been ordered but is not yet available, teaches in the abstract a composition containing a calcium phosphate, plus an organic acid such as citric acid, malonic acid, malic acid or maleic acid, and additionally glycerin, ethylene glycol or propylene glycol.

The claims differ from Tatsuzo in that they include a gelling agent in the composition and setting times between about 5 to 15 minutes.

Mandai (EP 0520690 A2) entitled "Calcium Phosphate Type Hardening Material for Repairing Living Hard Tissue" teaches on page 3 lines 38-40, a composition with organic acids including citric acid, malic acid, malonic acid, and maleic acid. On page 3 and throughout the specification, calcium phosphate compounds are disclosed. On page 3 the particle size is less than 50 microns. On page 4 first full paragraph, thickeners are shown including carboxymethyl cellulose, chitosan and gelatin. On page 8 Tables 2 and 3 show composition with setting times between about 5 to 15 minutes.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the thickening agents of Mandai in the composition of Tatsuzo because such dental restoration compositions require a range of viscosity to be useful and Mandai teaches the same agents as claimed to modify the viscosity. The compositions of both Mandai and Tatsuzo require particular ranges of viscosity to be useful. Many dental compositions, from endo cement, bone cement to composites, have desirable physical characteristics based upon their viscosity and altering the viscosity of such compositions by various means is well known in this art. Agents and techniques which thicken or thin calcium based cements are conventional in this art.

Applicant's arguments filed 6/15/09 have been fully considered but they are not persuasive.

Applicants response argues that the composition has two benefits, quick hardening time due to small particle size and high strength. The newly claimed feature of a gelling agent precludes wet field washout of the compound in situ. Tatsuzo does not include a gelling agent, have a quick hardening time or the same particle size. Mandai teaches an aqueous composition rather than a premixed non-aqueous composition.

It is the examiner's position that many of the features argued are not claimed and such advantages are given no patentable weight. The present claims are composition claims and the composition is rendered obvious by the above references. The gelling agent is shown by Mandai and the gelling agent would have the same function in the claimed composition. It is well known in this art that by adjusting the particle size, or combination of particle sizes, reaction times may be controlled which would include hardening time of cements. And there are a number of other issues regarding particle size such as film thickness, all of which are well known. As the present composition is ultimately mixed with water, Mandai is a proper reference because it too is mixed with water.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ralph Gitomer whose telephone number is (571) 272-0916. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached on (571) 272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ralph Gitomer/  
Primary Examiner, Art Unit 1657

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Primary Examiner  
Art Unit 1657